

Chapter 7 TECM 118 Practice Test

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Combine like terms.

1) $8a - 3a + 5$ A) $-5a + 5$ B) $5a + 5$ C) $10a$ D) $11a + 5$ 1) _____

2) $-4z - (-2z)$ A) $2z$ B) $-2z$ C) $-6z$ D) $-2z^2$ 2) _____

3) $-(-8m) + 8 + (-6n)$ A) $14mn + 8$ B) $8m + (-6n) + 8$ C) $8m + 6n + 3$ D) $2mn + 8$ 3) _____

Solve the equation.

4) $5(3r - 5) = -9$ A) $-\frac{16}{15}$ B) $-\frac{4}{15}$ C) $-\frac{34}{15}$ D) $\frac{16}{15}$ 4) _____

5) $9x - (3x + 24) = 18$ A) 8 B) 6 C) 7 D) 9 5) _____

Solve the equation. Round the solution to the nearest tenth.

6) $-60.5 = 23m + 1.6m - 5.97$ A) 0.4 B) -0.5 C) -79.1 D) -2.2 6) _____

Simplify.

7) $-5(-3.2x - 8)$ A) $x + 40$ B) $16x + 40$ C) $16x - 8$ D) $16x - 40$ 7) _____

8) $\frac{1}{12}(10x + 9y + 2z + \frac{1}{3})$ 8) _____

A) $\frac{10x + 9y + 2z + 1}{36}$ B) $\frac{11}{12}x + \frac{5}{6}y + \frac{1}{4}z + \frac{1}{18}$

C) $\frac{5}{6}x + \frac{1}{6}y + \frac{3}{4}z + \frac{1}{36}$ D) $\frac{5}{6}x + \frac{3}{4}y + \frac{1}{6}z + \frac{1}{36}$

Solve.

9) $5(2y - 3) = 9(y + 5) - 60$ A) 0 B) 60 C) -60 D) -30 9) _____

Simplify.

10) $2(-3a - 5b) - 5(a + 3b)$ A) $-11a + 25b$ B) $a - 25b$ C) $-13a - 25b$ D) $-11a - 25b$ 10) _____

Solve the equation.

11) $\frac{1}{4}a - \frac{1}{4} = -2$ 11) _____

A) 9

B) -7

C) -9

D) 7

A formula is given, along with values for all but one of the variables in the formula. Find the value of the variable that is not given.

12) $P = 2L + 2W$; $L = 9$, $W = 2$ 12) _____
A) $P = 36$ B) $P = 22$ C) $P = 11$ D) $L = 22$

13) $A = \frac{1}{2}(b + B)h$; $h = 9$, $b = 16$, $B = 14$ 13) _____

A) $A = 15$

B) $A = 224$

C) $A = 135$

D) $A = 105$

Solve the problem.

14) The markup on an item is its selling price, s , minus its cost, c . If a new printer costs \$298.25 and it sells for \$409.99, what is the markup? 14) _____

A) \$111.74

B) \$111

C) \$120.26

D) \$708.24

Translate the stated rule or relationship to a formula.

15) To calculate the average, A , of 3 numbers a , b , and c , we divide the sum of the three numbers by three. 15) _____

A) $A = \frac{a}{3} + b + c$

B) $A = \frac{3}{a + b + c}$

C) $A = a + b + c$

D) $A = \frac{a + b + c}{3}$

Write in scientific notation.

16) 462 16) _____
A) 4.62×10^3 B) 46.2×10^2 C) 4.62×10^2 D) 462×10^{-2}

17) 43,000,000 17) _____
A) 4.3×10^{-7} B) 4.3×10^{-8} C) 4.3×10^8 D) 4.3×10^7

18) 0.000002092 18) _____
A) 2.092×10^{-5} B) 2.092×10^{-6} C) 2.092×10^{-7} D) 2.092×10^6

Write in standard notation.

19) 4.522×10^4 19) _____
A) 45,220 B) 180.88 C) 4522 D) 452,200

20) 7.751×10^{-5} 20) _____
A) 0.000007751 B) 0.0007751 C) -775,100 D) 0.00007751

21) 5.41×10^{-4} 21) _____
A) 0.0000541 B) 0.00541 C) 0.000541 D) -541,000

Perform the indicated calculations. Express the answer in scientific notation.

22) $(0.0132)(0.465)$ 22) _____
A) 2.8387×10^{-2} B) 4.7820×10^{-1} C) 6.1380×10^{-3} D) 6.1380×10^2

23) $42,061 + 4740$

A) 4.6801×10^4

B) 1.9937×10^8

C) 4.6801×10^{-1}

D) 8.8736

23) _____

24) $\frac{2812}{69,106}$

A) 1.9433×10^8

B) 4.0691×10^3

C) 4.0691×10^{-2}

D) 4.0691×10^{-7}

24) _____

Use scientific notation to solve the problem.

25) The national debt of a small country is \$7,170,000,000 and the population is 2,526,000. What is the amount of debt per person?

A) \$28.38

B) $\$2.84 \times 10^6$

C) $\$2.84 \times 10^3$

D) \$2.84

25) _____

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Answer Key

- 1) B
- 2) B
- 3) B
- 4) D
- 5) C
- 6) D
- 7) B
- 8) D
- 9) A
- 10) D
- 11) B
- 12) B
- 13) C
- 14) A
- 15) D
- 16) C
- 17) D
- 18) B
- 19) A
- 20) D
- 21) C
- 22) C
- 23) A
- 24) C
- 25) C